TAYKOV, L.V.

Divergence of Fourier series under a system of trigonometric
transpositions. Usp. mat. nauk 18 no.5:191-198 S-O '63.

(MIRA 16:12)

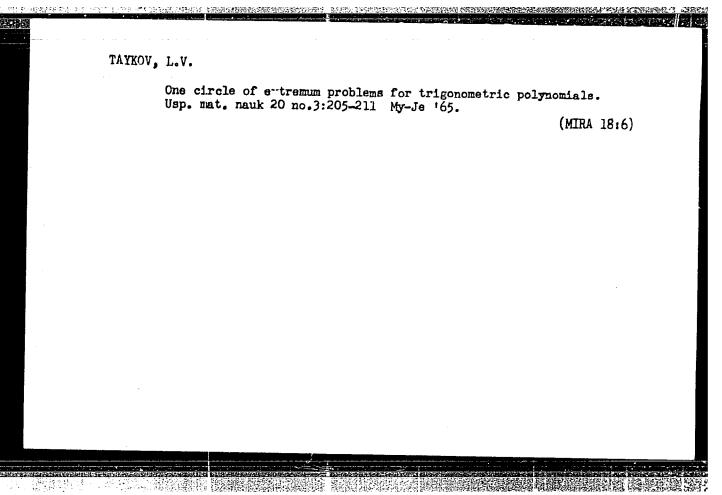TAYKOV, L.V.

Divergence of Fourier series of continuous functions in a
rearranged trigonometric system. Dokl. AN SSSR 150 no.2:262-265
My '63.   (MIRA 16:5)

1. Sverdlovskoye otdeleniye Matematicheskogo instituta im. V.A.
Steklova AN SSSR. Predstavleno akademikom A.N.Kolmogorovym.
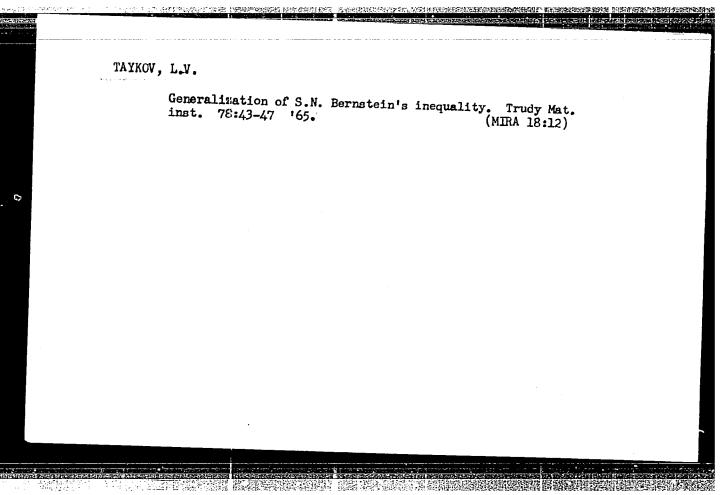   (Fourier series)   (Functions, Continuous)

TAYKOV, L.V.

Approximation of periodic functions in the mean. Dokl. AN SSSR 163
no.2:301-302 Jl '65.   (MIRA 18:7)

1. Sverdlovskoye otdeleniye Matematicheskogo instituta im. V.A.
Steklova AN SSSR. Submitted January 7, 1965.

TAYKOV, L.V.

One circle of e-tremum problems for trigonometric polynomials.
Usp. mat. nauk 20 no.3:205-211 My-Je '65.

(MIRA 18:6)

L 13917-66   EWT(d)/T/EWP(1)   LJP(c)
ACC NR: AT6000423

AUTHORS: Stechkir, S. B.; Taykov, L. V.

SOURCE CODE: UR/2517/65/078/000/0012/0023

ORG: Mathematics Institute, AN SSSR (Matematicheskiy institut, AN SSSR)

/7

TITLE: Minimal extensions of linear functionals

16,44,55

β + 1

SOURCE: AN SSSR. Matematicheskiy institut. Trudy, v. 78, 1965. Ekstremal'nyye
polinomov (Extremum properties of polynomials), 12-23

TOPIC TAGS: functional analysis, extremal problem

ABSTRACT: The authors study properties of minimal extensions of functions $f \in C_m^*$
(the conjugate space of linear functionals defined on C_m, the space of real
trigonometric polynomials of order m) on C (the space of continuous periodic functions)
and on $C_n (n > m)$. It is shown that for any $f \in C_m^*$ there is at least one canonical
extension on C (i.e., a norm preserving one for which

$$ f(t) = \int_0^{2\pi} t(x)\, d\sigma(x), \qquad (1) $$

where σ is a step function with a finite number $N \leq 2m$ of jumps). The extension
cannot be improved. Necessary and sufficient conditions for uniqueness of such

Card 1/2

2

L 13917-66

ACC NR: AT6000423

extensions are given. These results are used to study approximation of trigonometric polynomials and to study certain extremal problems. Orig. art. has: 22 formulas.

SUB CODE: 12/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001

Card 2/2

TAYKOV, L.V.

Generalization of S.N. Bernstein's inequality. Trudy Mat.
inst. 78:43-47 '65.
(MIRA 18:12)

TEDER, R.I., kand. tekhn. nauk; VATOLIN, Ye. S., kand. tekhn. nauk

Testing rocks for compression. Gor. zhur. no. 12:35-37
D '65.   (MIRA 18:12)

1. Institut gornogo dela imeni A.A. Skochinskogo.

ERCHLER, A.B.; BELOKOLOS, Ye.D.; TEDORADZE, G.A.

Effect of the adsorption of organic substances on the kinetics
of its electrochemical reduction at small surface coverage of
the electrode. Elektrokhimiia 1 no.12:1429-1433 D '65.
                                                  (MIRA 19:1)

1. Institut elektrokhimii AN SSSR. Submitted April 28, 1965.

YATSKOVSKIY, S.; KLIMOV, L., inzh.; ANTIPENKO, I., inzh.; TEGEL', E.,
    starshiy prepodavatel'; BELEVANTSEV, I., komandir samoleta
    (Maykop); LYSENKO, A.; BUZENKOV, S.; BULGAKOV, Yu.

Technological innovations. Grazhd. av. 22 no.7:22-24   Jl '65.
                                                        (MIRA 18:7)
1. "Kryl'ya Sovetov" (for Yatskovskiy).   2. Krivorozhskoye aviatsi-
onnoye uchilishche (for Tegel').

TAYKOV, YA. A.

"Additional Losses in the Steel of Teeth in the Presence of Loading in Three-Phase Asynchronous Motors." Min Higher Education, Ivanovo Power Engineering Inst imeni V. I. Lenin, Ivanovo, 1953
(Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

y2

AUTHOR: Taykov, Ya. A., Cand. Tech. Sci.

TITLE: Computing Eddy Current Pulsation Losses in the Steel
             of Teeth caused by Higher Harmonics of the Magnetiz-
             ing Force of Three-Phase Induction Motor Windings
             (Raschet Pul'satsionnykh poter' na vikhrevyye toki v
             stali zubtsov ot vysshikh garmonik n.s. obmotok
             trekhfaznykh asinkhronnykh dvigateley)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, No.2, pp.31-38
             (U.S.S.R.)

ABSTRACT: The curves of the m.f. and the fields of stator and
             rotor windings of induction motors contain the higher
             as well as the fundamental harmonics. The magnetic
             fields of the higher harmonic magnetizing forces cause
             losses in the steel and windings. These form the
             main part of the stray load loss which has been shown
             by experiment to making 2-2 1/2% or even as much as
             5% of the motor power. Therefore, the computation
             of losses caused by the higher harmonics is of practi-
             cal importance.

Card 1/4

TITLE:

Computing Eddy Current Pulsation Losses in the Steel of Teeth caused by Higher Harmonics of the Magnetizing Force of Three-Phase Induction Motor Windings (Raschet Pul'satsionnykh poter' na vikhrevyye toki v stali zubtsov ot vysshikh garmonik n.s. obmotok trekhfaznykh asinkhronnykh dvigateley)

The magnetic flux of harmonics is partly linked by the tooth tips and partly penetrates the body of the teeth causing surface and pulsation losses in them. It is usually assumed that the pulsation losses from the nth harmonic are caused by that part of its magnetic flux which penetrates into the body of the teeth. Another part of the flux which closes through the tips of the teeth causes the surface losses. This does not take into account a small error caused by the use of superposition. To determine the pulsation losses of the eddy currents in the teeth of three-phase induction motors with a whole number of slots per pole and per phase the author uses a well known

Card 2/4

formula for eddy currents in steel without allowing

92

TITLE:

Computing Eddy Current Pulsation Losses in the Steel of Teeth caused by Higher Harmonics of the Magnetiz-ing Force of Three-Phase Induction Motor Windings (Raschet Pul'satsionnykh poter' na vikhrevyye toki v stali zubtsov ot vysshikh garmonik n.s. obmotok trekhfaznykh asinkhronnykh dvigateley)

for their screening effect.

The author then derives and solves formulae for losses due to the higher harmonics and gives a number of curves which are useful in making these computations for motors. The influence of different features of motor design on the harmonic losses is shown. In an appendix the author gives a calculation of pulsation losses due to eddy currents in the steel of the teeth of an induction motor.

Card 3/4

The article contains 6 graphs and 5 references of which 4 are Slavic.

T A Y K O V YA A.

AUTHOR: Taykov, Ya.A., Candidate of Technical Sciences.   110-9-5/23

TITLE: The Calculation of Surface Losses due to Eddy Currents in
          the Steel of Teeth Caused by Higher Harmonics of the Mag-
          netising Force of Windings in Three-phase Induction Motors.
          (Raschet poverkhnostnykh poter' na vikhrevyye toki v stali
          zubtsov ot vysshikh garmonik n. s. obmotok v trekhfaznykh
          asinkhronnykh dvigatelyakh)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.9,
                                        pp. 16 - 21 (USSR).

ABSTRACT: The magnetic fields caused by higher harmonics of the
           magnetising force of the windings cause surface and pulsating
           losses in the steel of the teeth of induction motors. This
           article is concerned only with the calculation of the surface
           losses: the pulsating losses were the subject of an earlier
           article in Vestnik Elektropromyshlennosti, 1957, No.2. The
           magnetic field distribution in the crown of a tooth is some-
           what different from that in a smooth armature without slots.
           In machines with open and semi-closed slots there is an increase
           in the magnetic induction and in the loss in the crown of the
           tooth. In order to allow for this, use is made of a physical-
           analytical method of determining the surface losses. An
Card 1/4   equation is written for the magnetic induction at the rotor

The Calculation of Surface Losses due to Eddy Currents in the Steel of Teeth Caused by Higher Harmonics of the Magnetising Force of Windings in Three-phase Induction Motors.

circumference of an electric motor with a whole number of slots per pole and per phase. To calculate the loss, the magnetic field of any given harmonic of the magnetising force of the stator (or rotor) winding, which is rotating relative to the rotor (or stator) is resolved into two pulsating fields: the magnetic fluxes corresponding to these fields and the field through the crowns of the teeth are evaluated and the magnetic field in a tooth is plotted. In this plot the intersections of magnetic equipotential and field lines form small squares, which in turn form volume elements in the sheet steel. The eddy-current losses in these elementary volumes are equal and an expression to calculate them is given. In this way, the losses for each pulsating field of the harmonic are found and summated. Losses for the various harmonics are then summated and finally an expression is obtained for the surface eddy-current losses. Methods of determining various coefficients that enter into the calculation are explained. The sums of loss coefficients for individual harmonics were calculated for convenience in subsequent calculations and for the purpose of Card2/4 analysis. The calculation showed that losses due to the tooth

The Calculation of Surface Losses due to Eddy Currents in the Steel of   110-9-5/23
Teeth Caused by Higher Harmonics of the Magnetising Force of Windings
in Three-phase Induction Motors.

calculated values of losses in various types of motors are
tabulated.

There are 5 figures and 5 references, 2 of which are Slavic.

ASSOCIATION: Ivanovo Power Institute (Ivanovskiy energeticheskiy
institut)

SUBMITTED: April 11, 1957.

AVAILABLE: Library of Congress.

Card 4/4

TAYKOV, Yakov Alekseyevich, kand. tekhn. nauk, prepodavatel'.

Calculating the additional losses by eddy currents in the tooth
steel caused by loads in three-phase induction motors with fraction-
al windings. Izv. vys. ucheb. zav.; elektromekh. 1 no.3:49-56 '58.
(MIRA 11:6)

1. Kafedra elektricheskikh mashin Ivanovskogo energeticheskogo
instituta.

(Electric motors, Induction)
(Electric currents, Eddy)

AUTHOR: Taykov, Yakov Alekseyevich, Candidate of Technical
            Sciences, Lecturer

SOV/144-58-7-4/15

TITLE: Calculation of the Losses Caused by the Higher Harmonics
            of Stator Winding Magnetising Force in the Short
            Circuited Rotor Winding of a Three-Phase Induction Motor
            (Raschet poter' v obmotke korotkozamknutogo rotora ot
            vysshikh garmonik m.s. obmotki statora v trekhfaznykh
            asinkhronnykh dvigatelyakh)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
            Elektromekhanika, 1958/-Nr 7, pp 31-41 (USSR)

ABSTRACT: The magnetic field of higher harmonics of the m.m.f.
          cause losses in the iron and copper of induction motors.
          Previous articles by this author have dealt with the
          calculation of the iron losses in the teeth, and the
          present article deals with determination of losses in a
          short circuited rotor winding of a motor with a whole
          number of slots per pole and per phase.   Eq (1) is a
          general expression for the copper loss in the rotor due
          to higher harmonics of the stator winding m.m.f.   The
          first problem is to determine the corresponding rotor
Card 1/5 current and expression (8) is derived.   Then the

SOV/144-58-7-4/15

Calculation of the Losses Caused by the Higher Harmonics of Stator
Winding Magnetising Force in the Short Circuited Rotor Winding of
a Three-phase Induction Motor

inductance of the rotor winding must be determined and
expression (11) is derived. Then expression (18) is
derived for the power loss due to any particular harmonic
and subsidiary formulae are given for determination of
the various factors entering into this equation.
Expression (23) is then given for the summated power loss
due to all the higher harmonics; this equation gives the
answer but the form is not very convenient for practical
calculations. Calculations are accordingly made of the
sums of the loss factor coefficients for individual
harmonics, and harmonics not of tooth frequency are
treated first and separately from those of tooth
frequency. Sums of the coefficients are first deter-
mined on the assumption that the stator slots are closed,
that the rotor slots are not skewed and that there is no
skin effect in the rotor bars. With these simplifying
assumptions the sums of the loss factors for the rotor
Card 2/5 bars may be determined graphically from the curve given
in Fig 1. The influence of each of the simplifying

SOV/144-58-7-4/15

Calculation of the Losses Caused by the Higher Harmonics of Stator
Winding Magnetising Force in the Short Circuited Rotor Winding of
a Three-phase Induction Motor

assumptions is considered in turn and curves are given for
the determination of the appropriate correction factors:
the influence of opening of the stator slots is allowed
for by a factor determined from the graph given in Fig 2;
the influence of skew of the rotor slots is allowed for
by multiplying together two factors obtained from the
graphs given in Fig 3; and the influence of skin effect
may be allowed for by a correction factor obtained from
the graph of Fig 4. Harmonics of tooth frequency are
then considered and it is shown that: when the ratio of
the number of slots in the rotor to that in the stator is
between 2/3 and 1 the tooth frequency harmonic losses are
small and may be neglected; the tooth frequency harmonic
losses do not depend much on the number of slots per pole
and per phase but depend mainly on the ratio of the
number of slots in the rotor to that in the stator,
correction factors to allow for those losses being given
in Fig 5. The influence of opening the stator slots and
skew of the rotor slot on the tooth frequency harmonics

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SOV/144-58-7-4/15

Calculation of the Losses Caused by the Higher Harmonics of Stator
Winding Magnetising Force in the Short Circuited Rotor Winding of
a Three-phase Induction Motor

is little affected by the number of slots per pole and
per phase but again depends on the ratio of the number
of slots in the rotor to that in the stator and the
necessary correction factors are given in Figs 6 and 7;
skin effect may be allowed for by expression (28) and
the graph of Fig 8.   It is seen from the graphs that
losses due to harmonics not of tooth frequency depend
very much on correct choice of stator winding pitch and
if this is correctly chosen the losses will be only a
fraction of what they are with diametric pitch.   Tooth
frequency harmonics are best reduced by correct choice
of the ratio of the number of slots in the rotor to
that in the stator.   These losses are much reduced by
skewing the slots, which particularly reduces tooth
frequency harmonics.   Expression (23) is then rewritten
in the form of expression (29) in which the various
graphically determined factors are used so that the
equation is of convenient form for practical calculations.

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SOV/144-58-7-4/15

Calculation of the Losses Caused by the Higher Harmonics of Stator
Winding Magnetising Force in the Short Circuited Rotor Winding of
a Three-phase Induction Motor

Equation (29a) which allows for skin effect can only be
used when the height of rectangular or diameter of a
circular bar is greater than 4.5 mm for copper bars and
6 mm for aluminium bars. A numerical example of loss
calculation is given as an appendix.
There are 8 figures and 6 references, 5 of which are
Soviet and 1 English.

ASSOCIATION: Kafedra elektricheskikh mashin Ivanovskogo
energeticheskogo instituta (Electrical Machinery Chair,
Ivanovo Power Institute)

SUBMITTED: June 9, 1958

Card 5/5

SOV/144-58-10-5/17

AUTHOR: Taykov, Ya.A., Candidate of Technical Sciences, Lecturer

TITLE: Calculation of the Stray Losses Due to Eddy Currents in
            the Tooth Steel of Loaded Three-Phase Multi-Speed
            Induction Motors with Pole-Changing Control (Raschet
            dobavochnykh poter' na vikhrevyye toki v stali zubtsov
            pri nagruzke v trekhfaznykh mnogoskorostnykh
            asinkhronnykh dvigatelyakh s pereklyucheniyem chisla
            polyusov)

ABSTRACT: This article is an extension to multi-speed motors of
            similar articles relating to single speed motors
            published in Vestnik Elektropromyshlennosti, 1957,
            Nr 2 and Nr 9. The main uses of pole-changing induction
            motors are described, the types produced in the USSR are
            listed and it is found that only pole changing in the
            ratio of 1:2 need be considered. When the motors are
            collected for the slower speed with the larger number of
            poles the phase zone is 2/3 of the pole pitch. In general,
Card 1/5   the formulae used to calculate the stray losses for single

SOV/144-58-10-5/17

Calculation of the Stray Losses Due to Eddy Currents in the Tooth
Steel of Loaded Three-Phase Multi-Speed Induction Motors with
Pole-Changing Control

speed motors are also applicable to pole-changing
motors. When the pole-changing motor is operating at
the higher speed the tooth losses may be calculated
just as in the case of single-speed motors. However,
when the speed is reduced and the number of poles is
increased and the width of the winding zone is 2/3 of
the pole pitch the distribution coefficients of the
fundamental and higher harmonics are not of the same
values as when the phase zone is 1/3 of the pole pitch.
Therefore, the magnetic field of the higher harmonics
and the losses that they create when the motor is working
at the lower speed differ in value from the corresponding
losses of a single speed motor. Moreover, even
harmonics appear in the curves of the mmf and field.
Eq (1) and (2) are then given for the sums of the loss
factors of individual harmonics, in a single speed motor.
In determining surface losses only tooth frequency losses
need be taken into account and in this case the usual
Card 2/5   expression is valid when the phase zone is 2/3 of the

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Calculation of the Stray Losses Due to Eddy Currents in the Tooth
Steel of Loaded Three-Phase Multi-Speed Induction Motors with
Pole Changing Control

pole pitch. In calculating the pulsation losses it is
best to consider separately higher harmonics of tooth
frequency and those that are not of tooth frequency.
It is shown that the usual expressions and curves can
be used for the tooth frequency harmonics. In general
however, the coefficients of the pulsation losses for
higher harmonics not of tooth frequency are not the
same in pole-changing as in single-speed motors.
Calculations have been made of the sums of the loss
factors of individual harmonics of other than tooth
frequency and it was found that only harmonics lower than
the first order tooth frequency need be considered. A
correction factor is used to allow for the stator slots
being open. Loss factor curves for the rotor teeth of
a pole changing motor are given in Fig 1 and curves of
the correction factor to allow for the influence of slot
opening in Fig 2. These curves can also be used for
stator calculations. The curves show that pulsation

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Calculation of the Stray Losses Due to Eddy Currents in the Tooth
Steel of Loaded Three-Phase Multi-Speed Induction Motors with
Pole-Changing Control

losses due to higher harmonics of lower than tooth
frequency depend very much on the winding pitch when
the motor is running at the reduced speed. Eq (6) and
(7) are then given for the surface and pulsating losses
due to eddy currents in the rotor teeth, the notation
is the same as in the previous article. The method of
calculating the stray losses in pole-changing motors is
very similar to that in normal motors and as examples of
this have already been given in the previous articles no
example is given here. In Table 1, a comparison is
made between experimental and calculated values of total
losses due to higher harmonics in two types of motor and
in different cases the calculated losses range from
80 to 90% of the experimentally determined value.
There are 2 figures, 1 table and 5 references, 3 of which

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SOV/144-52-10-5/17

Calculation of the Stray Losses Due to Eddy Currents in the Tooth
Steel of Loaded Three-Phase Multi-Speed Induction Motors with
Pole-Changing Control

          are Soviet and 2 German.

ASSOCIATION·Ivanovskiy energeticheskiy institut , Kafedra
          elektricheskikh mashin (Ivanovo Power Institute, Chair
          of Electrical Machines)

SUBMITTED: 31st October 1958

Card 5/5

SOV/144-58-11-4/17

AUTHOR: Taykov, Ya. A. (Docent, Cand.Tech.Sciences, Lecturer)

TITLE: The Influence of Reaction on the Eddy Current Iron Losses in the Teeth of Three-Phase Induction Motors Caused by Higher Harmonics of the Magnetizing Force in the Winding (Vliyaniye reaktsii na poteri na vikhrevyye toki v stali zubtsov ot vysshikh garmonik N.S.obmotok v trekhfaznykh asinkhronnykh dvigatelyakh)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, /- 1958, Nr 11, pp 33-40 (USSR)

ABSTRACT: The magnetic fields of higher harmonics of the magnetizing force cause losses in machine steel and windings. These losses form the major part of the so-called stray losses on load which are usually up to 2.5% but may be as much as 5% of the power delivered to the motor. It is obviously necessary to be able to calculate these losses more accurately. Previous works by this author on the calculation of surface and pulsating losses due to eddy currents derived from these harmonics give formulae that do not allow for winding reaction. The magnetic fields of higher harmonics of the magnetizing force of the stator, for instance, will induce e.m.f.'s in the rotor winding. The rotor current that results from the induced field of a given stator harmonic sets up a magnetizing

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SOV/144-58-11-4/17

The Influence of Reaction on the Eddy Current Iron Losses in the Teeth
of Three-Phase Induction Motors Caused by Higher Harmonics of the
Magnetizing Force in the Winding

force of stepped wave shape which can be resolved into a
harmonic series. One of these harmonics, which is of the
same order as the stator harmonic will create the reaction
of the rotor winding relative to the exciting harmonic and
the field of the remaining harmonics will create the differ-
ential rotor leakage reactance for this stator harmonic.
The reduction in the magnetic field due to reaction can be
allowed for by introducing a damping coefficient, for example,
the equation of the damping coefficient for the first stator
harmonic is given in expression (1). This expression can be
simplified to the form of expression (2). The method of
determining the losses in the teeth of a short circuited
rotor with allowance for reaction is then explained. The
sum of the loss coefficients is first determined without
allowing for reaction by the methods given in the author's
previous articles and this sum is then multiplied by a
correction factor to allow for damping. Values of this

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The Influence of Reaction on the Eddy Current Iron Losses in the Teeth
of Three-Phase Induction Motors Caused by Higher Harmonics of the
Magnetizing Force in the Winding

      coefficient for surface and pulsation losses can be found
from expressions (9) and (10) respectively. These coeffic-
ients have been calculated for convenience of analysis and
examples of correction factor curves for surface losses are
given in Fig 1. Other curves for different conditions are
given in Fig 2 and from comparison of the two figures it
will be seen that the damping correction coefficient is very
dependent upon the ratio of the number of slots in rotor and
stator and on the skew of the rotor slots. Pulsation losses
are calculated separately and curves of damping correction
coefficients for pulsation losses are given in Fig 3. The
procedure for calculating pulsation losses is explained at
some length with reference to Figs 4 and 5. Finally, ex-
pressions (12) and (13) are given respectively for the
surface and pulsation losses due to eddy currents in the
teeth of a rotor with a squirrel cage winding. The notation
used in these formulae is the same as in the author's previous

Card 3/4

SOV/144-58-11-4/17

The Influence of Reaction on the Eddy Current Iron Losses in the Teeth of Three-Phase Induction Motors Caused by Higher Harmonics of the Magnetizing Force in the Winding

articles. An appendix gives an example of calculation of surface and pulsating losses in a 7.4 kW motor running at 1460 r.p.m. The losses calculated without allowance for reaction are 160.5 W and with allowance for reaction 15.5 W. The experimental value of the losses is 128 W. There are 5 figures and 10 references; 8 of the references are Soviet, 1 is English and 1 German.

ASSOCIATION: Ivanovskiy energeticheskiy institut (Ivanovo Power Institute) (Kafedra elektricheskikh mashin - Chair for Electrical Machinery)

SUBMITTED: October 31, 1958.

Card 4/4

ZIL'BERMAN, Ye.N.; TAYKOVA, N.K.

     Reactivity of nitriles of dibasic aliphatic acids. Zhur.ob.khim.
     30 no.8:2506-2510 Ag '60.   (MIRA 13:8)
          (Nitriles)

ZIL'BERMAN, Ye.N.; TAYKOVA, N.K.; RYBAKOVA, N.A.; FELLER, K.L.

Study of the selective reactivity of one nitrile group in
adiponitrile. Zhur.ob.khim. 31 no.6:2040-2045 Je '61.
(MIRA 14:6)

(Adiponitrile)

TAYLER, D.K.; TOMAS, L.F.; SHERIDAN, D.

      Comments on the article "Rotational spectrum of the cyanamide
      molecule. Opt. i spektr. 12 no.3:452 Mr '62.   (MIRA 15:3)
           (Cyanamide--Spectra) (Molecular rotation)

TAYLEV, L.M.; BARMYY, N.F.

Institute of Metallurgy, Academy of Sciences, USSR. "Concerning the Efficient Utilization of Manganese Ores." Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 9, 1945. Presented 19 Jun 1945.

Report U-1582, 6 Dec 1951.

TAYLOR, Aleksandra; SUCHARZEWSKA, Regina

Generalized moniliasis in a newborn infant. Pediat. polska 35
no.9:1118-1124 S '60.

1. Z II Kliniki Polozniczo-Ginekologicznej A.M. w Poznaniu
Kierownik: doc. dr med. E.Howorka i z Zakladu Anatomii Patologicznej
A.M. w Poznaniu Kierownik: prof. dr med. J.Groniowski.
        (MONILIASIS in inf & child)
        (INFANT NEWBORN dis)

MORZYCKI, Jerzy; TAYLOR, Karol; KAWECKI, Zbigniew; WYSOCZYNSKA, Halina;
TAYLOR, Alina

Comparative studies on nucleic acids content in complete and
incomplete forms of influenza virus; preliminary communication.
Bull. Inst. Marine Trop. M. Gdansk 7:78-79; Russian transl.
p. 79-80; English transl. p.80-81 1956.

1. Z Panst. Inst. Med. Mors. Trop. w Gdansku.
   (NUCLEIC ACIDS, metabolism,
       influenza viruses, complete & incomplete forms
       (Pol; Rus; English))
   (INFLUENZA VIRUSES, metabolism,
       nucleic acids in complete & incomplete forms
       (Pol; Rus; English))

1509. DETERMINATION OF SERUM ALDOLASE AS DIAGNOSTIC TEST IN IN-
   FECTIOUS HEPATITIS - Le dosage d'aldolase de sérum comme un test
   diagnostique dans l'hépatite épidémique - T a y l o r A., Taylor K.,
   U h l W. and O s i ń s k a - C h i m i a k M. Inst. de la Méd. Marine, Gdańsk -
   BULL. INST. MAR. TROP. MED. GDAŃSK 1957, 8/1-2 (9-19) Graphs 4 Tables 1
The aldolase level in healthy subjects varies between 2 and 32 U./ml. It is express-
ed as the arithmetic mean of 14 determinations with a standard deviation of 6 U./
ml. In patients with infectious hepatitis (up to the 10th day of the jaundice), the
aldolase level varies between 9 and 183 U./ml. In 76% of the total number of pa-
tients examined, values higher than 40 U./ml. were observed, which is rarely the
case in patients with other diseases. It is suggested that Lehninger's method,
modified by Bruns, be employed for the determinations, and that aldolase activity
be expressed in extinction units multiplied by 100 (Pulfrich's photometer, thick-
ness of layer 10 mm., filter S 53). Use of a standard unit of enzyme activity
facilitates comparison of the results.   (L.6,7)

TAYLOR, Alina; MORZYCKA, Maria

Aldolase test on guinea pigs infected with blood of patients affected
with hepatitis epidemica. Bull. Inst. Marine M. Gdansk 9 no. 1-2:19-25
1958.

1. (From the Institute of Marine Medicine in Gdansk).
   (DESMOIASES, determination
         aldolase activity in blood of guinea pigs after infect. with
         hepatitis virus)
   (HEPATITIS, INFECTIOUS, virus
         aldolase activity of blood of guinea pigs after infect. with
         hepatitis virus)

MORZYCKI, Jerzy; TAYLOR, Karol; KAWECKI, Zbigniew; TAYLOR, Alina

Comparison of nucleic acid contents in complete & incomplete forms
of influenza virus. II. Bull. Inst. Marine M. Gdansk 8 no.1-2:43-48
1957.

1. Z Instytutu Medycyny Morskiej w Gdansku.
        (INFLUENZA VIRUSES, metab.
            nucleic acid content in complete & incomplete forms,
            comparison)
        (NUCLEIC ACIDS, metab.
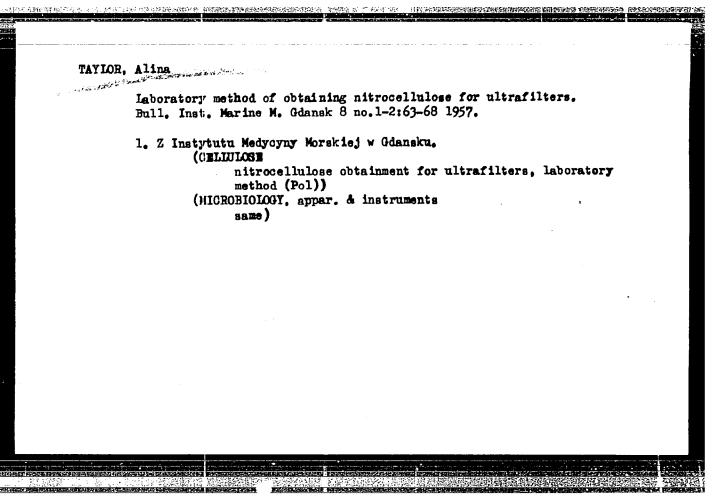   influenza virus complete & incomplete forms, comparison)

TAYLOR, Karol; TAYLOR, Alina; STARCZEWSKI, Antoni

Obtainment & determination of hyaluronidase. Bull. Inst. Marine
M. Gdansk 8 no.1-2:57-62 1957.

1. Z Instytutu Medycyny Morskiej w Gdansku.
        (HYALURONIDASE, prep.
                extraction from bull testes, prep. & testing (Rus))

TAYLOR, Alina

    Laboratory method of obtaining nitrocellulose for ultrafilters.
    Bull. Inst. Marine M. Gdansk 8 no.1-2:63-68 1957.

    1. Z Instytutu Medycyny Morskiej w Gdansku.
        (CELLULOSE
            nitrocellulose obtainment for ultrafilters, laboratory
            method (Pol))
        (MICROBIOLOGY, appar. & instruments
            same)

TAYLOR, Alina; HORZYCKA, Maria; TAYLOR, Karol

Examination of the aldolase activity in tissue cultures infected with
material from patients suffering with hepatitis epidemica. Bull. Inst.
Marine M. Gdansk 9 no.1-2:11-17 1958.

1. (From the Institute of Marine Medicine in Gdansk).
     (IZSMOLASES, determination
         aldolase activity in tissue cultures infected with hepatitis
         virus)
     (HEPATITIS, INFECTIOUS, virus
         aldolase activity of tissue cultures infected with hepatitis
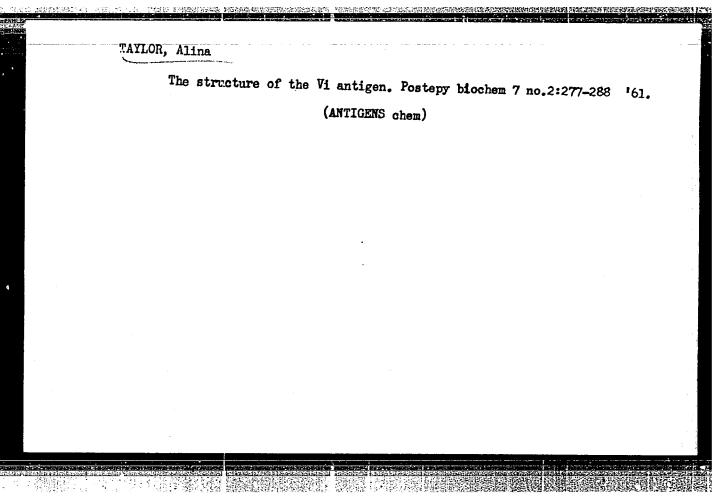   virus)

TAYLOR, ALINA

MORZYCKA, Maria; TAYLOR, Alina

Attempts to use the strain Detroit 6 for investigations on the hepatitis epidemica virus. Bull. Inst. Marine M. Gdansk 9 no.1-2: 37-42 1958.

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   (HEPATITIS, INFECTIOUS, virus
        attempted isolation in tissue cultures)

TAYLOR, Alina

The structure of the Vi antigen. Postepy biochem 7 no.2:277-288 '61.

(ANTIGENS chem)

TAYLOR, Karol; TAYLOR, Alina

Estimation of Vi-receptor activity. Acta microbiol. pol. 12 no.2:
97-106 '63.

1. From the Biochemical Laboratory, Institute of Marine Medicine,
Gdansk. Acta microbiol. pol. 12 no.2:97-106 '63.
      (SALMONELLA PHAGES)   (ERYTHROCYTES)   (ANTIGEN-ANTIBODY REACTORS)

TAYLOR, Alina

Purification and properties of the Vi-phage receptor from
Salmonella typhi. Acta Biochim. Pol. 11 no.1:33-47 '64.

1. The Biochemical Laboratory, Institute of Marine Medicine,
Gdansk.

TAYLOR, Alina

Purification of the Vi-phage receptor from Salmonella typhi and the properties of the purified preparation. Bull. inst. mar.med. Gdansk 15 no.1:49-51 '64
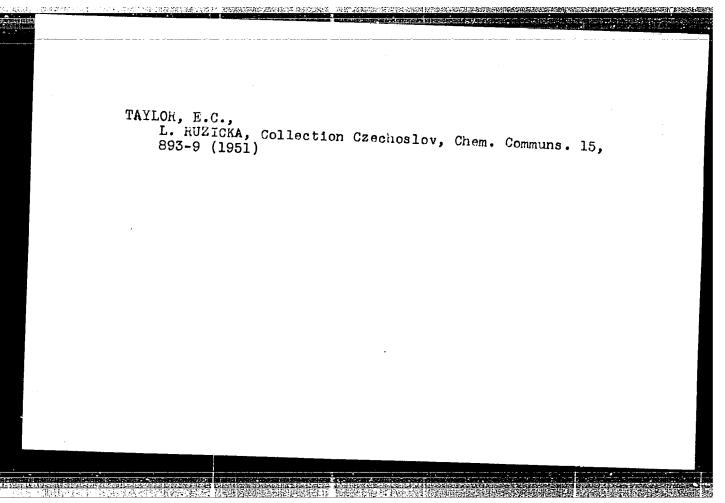
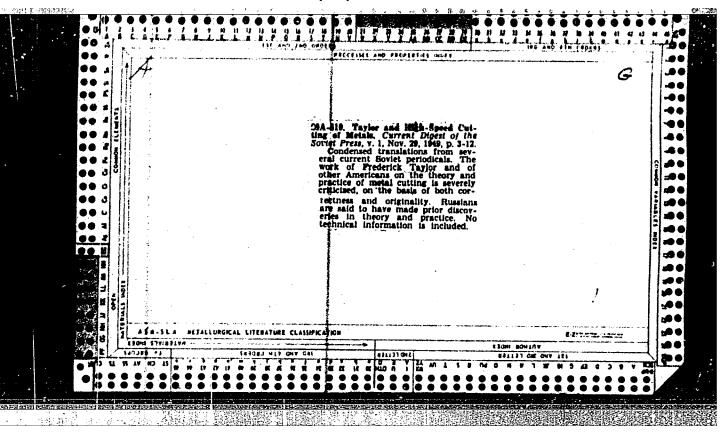1. From the Institute of Marine Medicine in Gdansk.

TAYLOR, Alina; TAYLOR, K.

Vi-phage receptor properties of Vi-polysaccharides isolated by
different methods. Acta biochim. Pol. 12 no.2:123-132 '65

1. The Biochemical Laboratory, Institute of Marine Medicine,
Gdansk.

TAYLOR, E.C.,
    L. RUZICKA, Collection Czechoslov, Chem. Communs. 15,
    893-9 (1951)

29A-819. Taylor and High-Speed Cutting of Metals. *Current Digest of the Soviet Press*, v. 1, Nov. 29, 1949, p. 3-12.
Condensed translations from several current Soviet periodicals. The work of Frederick Taylor and of other Americans on the theory and practice of metal cutting is severely criticized, on the basis of both correctness and originality. Russians are said to have made prior discoveries in theory and practice. No technical information is included.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
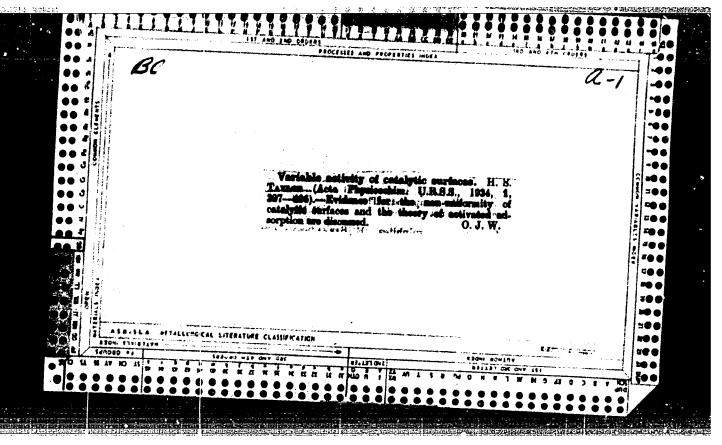
TAYLOR, H.G., dr. (Velika Britanija)

Annual report of the chairman of the International Institute of Welding Commission III "Electric resistance welding." Zavarivac 6 no.2/3:24-25 '61.

1. Predsednik Komisije III.

Chemical reactions on surfaces. H. S. TAYLOR. *Uspekhi Khim* (*Progress Chem.* (U.S.S.R.)) 1, 578–610(1932).—A review. P. H. RATHMANN

METALLURGICAL LITERATURE CLASSIFICATION

BC

α-1

Variable activity of catalytic surfaces. H. S.
Taxxxx (Acta Physicochim. U.R.S.S., 1934, 1,
397—406).—Evidence for the non-uniformity of
catalytic surfaces and the theory of activated ad-
sorption are discussed.   O. J. W.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

The variable activity of catalytic surfaces. H. S.
Taylor. Acta Physicochim. U. R. S. S. 1, 397-400
(1934).—See C. A. 29, 2003¹.
R. H.

A 5 2 - 1 L A   METALLURGICAL LITERATURE CLASSIFICATION

Variable activity of catalytic surfaces. H. S. Taylor and D. V. Jones. *Uspekhi Khim.* 3, 701-9(1934). Promoters, heats of adsorption, activated adsorption, inhomogeneities of surfaces and the quantum mech. interpretation of adsorption are discussed.   F. H. R.

Ca

4

Change in potential of silver-silver halide electrodes with time. R. R. Smith and I. K. Taylor. *Roczniki Chem.* 18, 709 (1938)(in English)(in Polish, 709 71)(1938). The conditions which govern the reproducibility of these electrodes of electrolytic, thermal-electrolytic and thermal types were investigated. The aging of electrodes is caused by concn. polarization in their prepn. The characteristic potential is const. to within = 0.12 mv. in 1-20 days, depending on the kind of the electrode, and the exclusion of O in acid soln. Freshly prepd. electrodes behave like cathodes toward the aged ones, and the initial difference in potentials frequently exceeds 1 mv.; cf. following abstr.   M. W.

A S M · S L A   METALLURGICAL LITERATURE CLASSIFICATION

15

Relationship between the mechanical composition of soil and the estimate of texture in the field. J. A. Prescott, J. K. Taylor and T. J. Marshall. *Trans. 1st Comm. Intern. Soc. Soil Sci.* 1934, 143–63.—A system of correlation is examd.   B. C. A.

METALLURGICAL LITERATURE CLASSIFICATION

MORZYCKI, Jerzy; TAYLOR, Karol; JUSZKIEWICZ, Eugeniusz

Attempted detection of infectious jaundice viruses in allantoic
fluids of chick embryo and in tissue culture fluids by electron
microscopic method. Bull. Inst. Marine Trop. M. Gdansk 7:p.45-
47; Russian transl. p.47-48; English transl. p. 49-50 1956.

1. Z Panstwowego Inst. Med. Mors. Trop. w Gdansku.
    (HEPATITIS, INFECTIOUS, virus,
        electron microscopy in allantoic fluid & tissue culture
        (Pol; Rus; English))
    (VIRUSES,
        hepatitis, electron microscopy in allantoic fluid &
        tissue culture (Pol; Rus; English))
    (TISSUE CULTURE,
        cultivation of hepatitis virus, electron microscopic
        detection (Pol; Rus; English))
    (MICROSCOPY, ELECTRON,
        of hepatitis virus in allantoic fluid & tissue culture
        (Pol; Rus; English))

MORZYCKI, Jerzy; TAYLOR, Karol; KAWECKI, Zbigniew; WYSOCZYNSKA, Halina;
    TAYLOR, Alina

Comparative studies on nucleic acids content in complete and
incomplete forms of influenza virus; preliminary communication.
Bull. Inst. Marine Trop. M. Gdansk 7:78-79; Russian transl.
p. 79-80; English transl. p.80-81 1956.

1. Z Panst. Inst. Med. Mors. Trop. w Gdansku.
    (NUCLEIC ACIDS, metabolism,
        influenza viruses, complete & incomplete forms
        (Pol; Rus; English))
    (INFLUENZA VIRUSES, metabolism,
        nucleic acids in complete & incomplete forms
        (Pol; Rus; English))

TAYLOR, Alina; TAYLOR, Karol; UHL, Wanda; OSINSKA-CHIMIAK, Maria

Blood aldolase determination as diagnostic test in epidemic hepatitis.
Bull. Inst. Marine M. Gdansk 8 no.1-2:9-19 1957.

1. Z Instytutu Medycyny Morskiej w Gdansku.
        (HEPATITIS, INFECTIOUS, blood in
             aldolase determ. as diag. test (Pr))
        (DESMOLASES, in blood
             aldolase determ. in infect. hepatitis, diag value (Pr))

MORZYCKI, Jerzy; TAYLOR, Karol; KAWECKI, Zbigniew; TAYLOR, Alina

     Comparison of nucleic acid contents in complete & incomplete forms
     of influenza virus. II. Bull. Inst. Marine M. Gdansk 8 no.1-2:43-48
     1957.

     1. Z Instytutu Medycyny Morskiej w Gdansku.
          (INFLUENZA VIRUSES, metab.
             nucleic acid content in complete & incomplete forms,
             comparison)
          (NUCLEIC ACIDS, metab.
             influenza virus complete & incomplete forms, comparison)

Taylor, Karol

TAYLOR, Karol; TAYLOR, Alina; STARCZEWSKI, Antoni

Obtainment & determination of hyaluronidase. Bull. Inst. Marine
M. Gdansk 8 no.1-2:57-62 1957.

1. Z Instytutu Medycyny Morskiej w Gdansku.
    (HYALURONIDASE, prep.
            extraction from bull testes, prep. & testing (Rus))

TAYLOR, KAROL

TAYLOR, Alina; MORZYCKA, Maria; TAYLOR, Karol

Examination of the aldolase activity in tissue cultures infected with material from patients suffering with hepatitis epidemica. Bull. Inst. Marine M. Gdansk 9 no.1-2:11-17 1958.

1. (From the Institute of Marine Medicine in Gdansk).
   (DESMOLASES, determination
       aldolase activity in tissue cultures infected with hepatitis
       virus)
   (HEPATITIS, INFECTIOUS, virus
       aldolase activity of tissue cultures infected with hepatitis
       virus)

TAYLOR, K.; BUCZKOWSKI, Z.

Disturbance in antigen Vi production as a result of HP mutation
in Salmonella typhi. Bul Ac Pol biol 10 no.5:171-173 '62.

1. Institute of Marine Medicine, Gdansk. Presented by E.Mikulaszek.

BUCZOWSKI, Zenon; TAYLOR, Karol

The phenomenon of haemolysis in the system Salmonella typhi —
bacteriophage Vi II. I. Exclusion of lysogenic conversion. Bull.
inst. mar. med. Gdansk 13 no.1/2:5-11 '62.

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        (SALMONELLA TYPHOSA)   (BACTERIOPHAGE)
                  (HEMOLYSIS)

TAYLOR, Karol

The phenomenon of haemolysis in the system Salmonella typhi —
bacteriophage Vi II. II. An unusual case of pseudolysogeny of
mutants haemolysing due to the action of bacteriophage. Bull.
inst. mar. med. Gdansk 13 no.1/2:13-22 '62.

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     (BACTERIOPHAGE)   (SALMONELLA TYPHOSA)   (HEMOLYSIS)

TAYLOR, Karol; BUCZOWSKI, Zenon

Disturbance in the production of Vi antigen as a result of the HP mutation in Salmonella typhi. Bull. inst. mar. med. Gdansk 13 no.4: 223-225 '62.

1. Z Instytutu Medycyny Morskiej w Gdansku.
    (SALMONELLA TYPHOSA)   (SALMONELLA PHAGES)   (ANTIGENS)

TAYLOR, Karol

Role of ribonucleic acids in transferring genetic information. Postepy hig. med. dosw. 16 no.3:351-371 '62.

1. Z Pracowni Biochemii Instytutu Medycyny Morskiej w Gdansku Dyrektor: prof. dr Z. Buczowski.

(RNA)   (GENETICS)

TAYLOR, Karol

Regulation of biosynthetic reactions in bacteria. Postepy
biochem. 9 no.3:383-392 '63.

(BACTERIA)   (METABOLISM)

TAYLOR, Karol; TAYLOR, Alina

Estimation of Vi-receptor activity. Acta microbiol. pol. 12 no.2: 97-106 '63.

1. From the Biochemical Laboratory, Institute of Marine Medicine, Gdansk. Acta microbiol. pol. 12 no.2:97-106 '63.
   (SALMONELLA PHAGES)   (ERYTHROCYTES)   (ANTIGEN-ANTIBODY REACTORS)

TAYLOR, Karol; KWIATKOWSKI, Bartlomiej

Adsorption of Vi-phage II on the Vi-receptor coated erythrocyte membranes, examined in the electron microscope. Acta microbiol. pol. 12 no.2:107-112 '63.

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(SALMONELLA PHAGES)   (ERYTHROCYTES)
(MICROSCOPY ELECTRON)   (ANTIGEN-ANTIBODY REACTIONS)

BLAWAT, Franciszek; KWIATKOWSKI, Bartlomiej. Wapólpraóowniey:KOWALSKA,
Zyta; TAYLOR, Karol; TAYLOROWA, Alina.

Laboratory diagnosis of smallpox at the Institute of Marine
Medicine in Gdansk during the 1963 epidemic. Bull. inst.mar.
med. Gdansk 15 no.1:23-28 '64.

1. Z Instytutu Medycyny Morskiej w Gdansku.

TAYLOR, Alina; TAYLOR, K.

Vi-phage receptor properties of Vi-polysaccharides isolated by different methods. Acta biochim. Pol. 12 no.2:123-132 '65

1. The Biochemical Laboratory, Institute of Marine Medicine, Gdansk.

TAYLOR. K.

A study on the loss of the receptor activity of Vi-poly-
saccharide durin~ incubation with Vi-phage II. Acta biochim.
Pol. 12 no.2:15.-166 '65

1. The Biochemical Laboratory, Institute of Marine Medicine,
Gdansk.

TAYLOR, Regina, mgr. inz.; GRUSZKOWSKI, Henryk, mgr. inz.

Chemical analysis of sediments from water and steam circulation.
Energetyka Pol 16   no.6:171-173 Je '62.

1. Zaklady Energetyczne Okregu Polnocnego (for Taylar).
2. "Energopomiar," Warszawa (for Gruszkowski).

BLAWAT, Franciszek; KWIATKOWSKI, Bartlomiej. Wspólpracowniey:KOWALSKA,
Zyta; TAYLOR, Karol; TAYLOROWA, Alina.

Laboratory diagnosis of smallpox at the Institute of Marine
Medicine in Gdansk during the 1963 epidemic. Bull. inst.mar.
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1. Z Instytutu Medycyny Morskiej w Gdansku.

TAYMANOV, A. D. Cand.. Physicomath. Sci.

Dissertation: "Quasi-Components of Incoherent Manifolds." Moscow State
Pedagogical Inst. imeni V. I. Lenin. 23 Jun. 1947.

SO: Vechernyaya Moskva, Jun. 1947. (Project #17836)
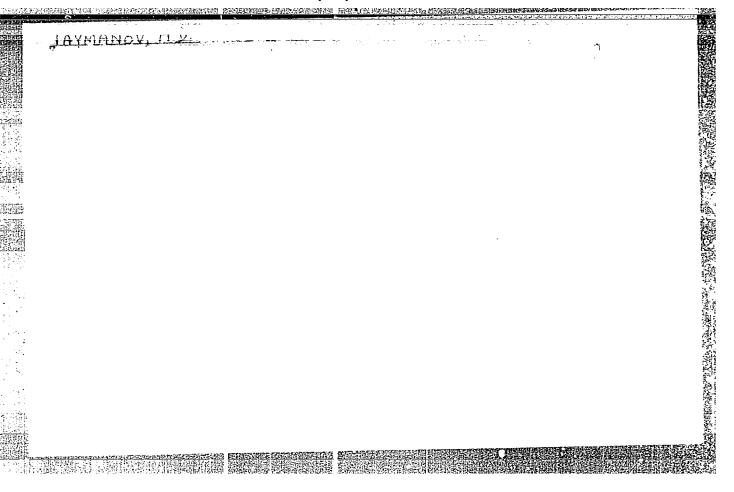
TAYMANOV A. D.

37159. O kvasikomponentakh nesvyaznykh mnozhestv. Matem sbornik, Novaya
Seriya, t. XXV, Vyp. 3, 1949, s. 367-86 — Bibliogr: 7 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol 7, 1949

TATARKY, A. L.

"Concerning the Quasi-mponent Nonconnected Sets," Matemat. Sbor., 25, No. 2, 1949.
Kzyl-Orda, -c1949-.

JAYMANOV, ILY

TAYMONOV, A. D.

USSR/Mathematics - Modern Algebra, Sets May/Jun 52

"Quasi-Components of Nonconnected Sets. II," A. D. Taymonov, Kzyl-Orda

"Matemat Sbor" Vol XXX (72), No 3, pp 465-482

Continuation of previous report (Ibid. 25 (67), 1949, 367-387). Discusses nonconnected sets lying in a Euclidean space E^n. Discusses the concepts of kernel (nucleus) of nonconnectivity and classifies nonconnected sets of a Euclidean space; demonstrates the nontriviality of derived classes

217T70

by concrete examples. Classifies deriv sets. Considers the space of connected components of derived sets and of A-sets. Submitted 16 Sep 50.

217T70

TAYMANOV, A. D.

USSR/Mathematics - Modern Algebra,   Sep/Oct 52
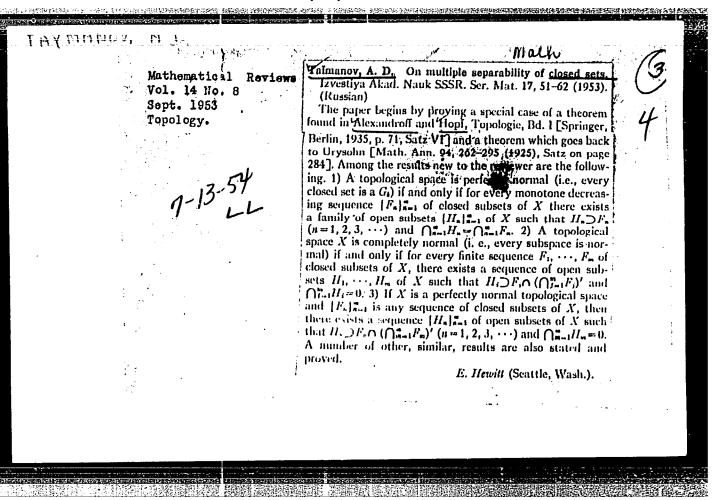   Topological Spaces

"Extension of Continuous Reflections of Topological
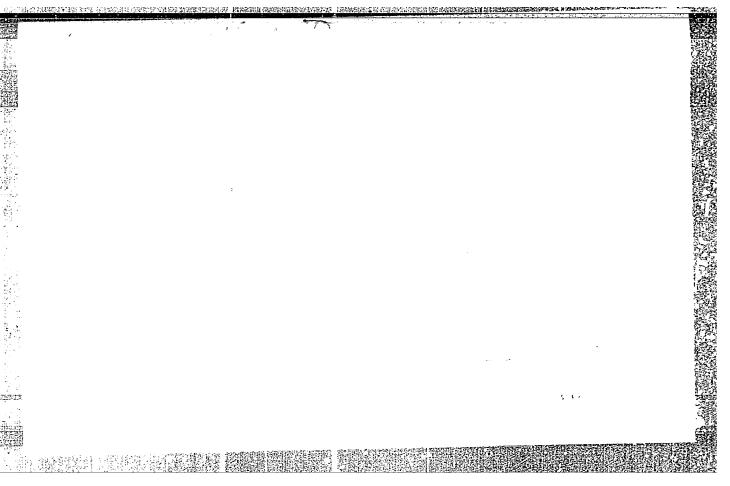Spaces," A. D. Taymanov, Kzyl-Orda

"Matemat Sbor" Vol 31 (73), No 2, pp 459-463

Strengthens the theorems of Yu. M. Smirnov and B. Z.
Vulikh which relate to Hausdorff topological spaces.
Submitted 26 Apr 52.

226T83

TAYMANOV, N. A.

Malk

Mathematical Reviews
Vol. 14 No. 8
Sept. 1953
Topology.

7-13-54
LL

Taimanov, A. D. On multiple separability of closed sets. Izvestiya Akad. Nauk SSSR. Ser. Mat. 17, 51–62 (1953). (Russian)

The paper begins by proving a special case of a theorem found in Alexandroff and Hopf, Topologie, Bd. 1 [Springer, Berlin, 1935, p. 71, Satz VI] and a theorem which goes back to Urysohn [Math. Ann. 94, 262–295 (1925), Satz on page 284]. Among the results new to the reviewer are the following. 1) A topological space is perfectly normal (i.e., every closed set is a G_i) if and only if for every monotone decreasing sequence $\{F_n\}_{n=1}^{\infty}$ of closed subsets of X there exists a family of open subsets $\{H_n\}_{n=1}^{\infty}$ of X such that $H_n \supset F_n$ $(n=1, 2, 3, \cdots)$ and $\bigcap_{n=1}^{\infty} H_n = \bigcap_{n=1}^{\infty} F_n$. 2) A topological space X is completely normal (i. e., every subspace is normal) if and only if for every finite sequence $F_1, \cdots, F_m$ of closed subsets of X, there exists a sequence of open subsets $H_1, \cdots, H_m$ of X such that $H_i \supset F_i \cap (\bigcap_{j=1}^{n} F_j)'$ and $\bigcap_{i=1}^{m} H_i = 0$. 3) If X is a perfectly normal topological space and $\{F_n\}_{n=1}^{\infty}$ is any sequence of closed subsets of X, then there exists a sequence $\{H_n\}_{n=1}^{\infty}$ of open subsets of X such that $H_n \supset F_n \cap (\bigcap_{m=1}^{n} F_m)'$ $(n=1, 2, 3, \cdots)$ and $\bigcap_{n=1}^{\infty} H_n = 0$. A number of other, similar, results are also stated and proved.

E. Hewitt (Seattle, Wash.).
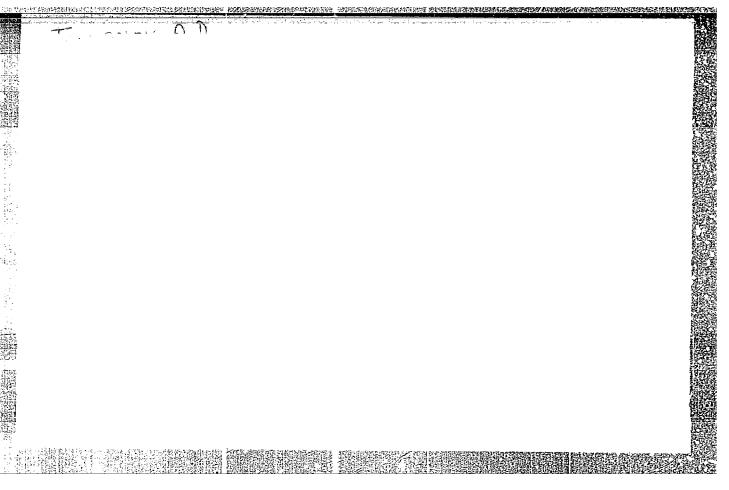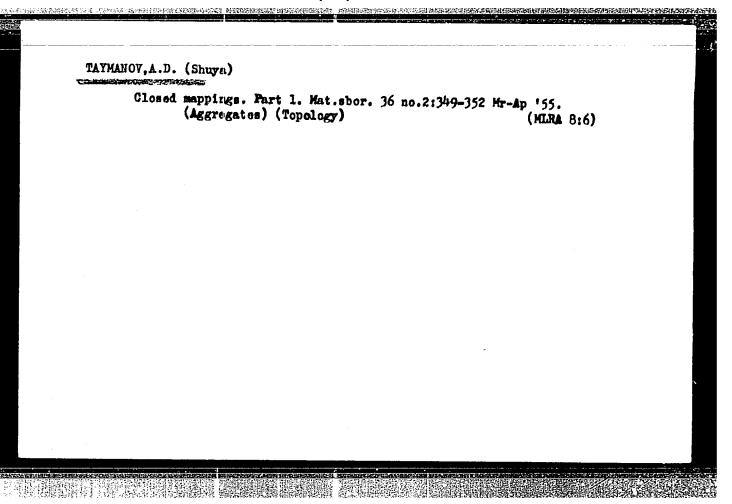
TAYMANOV, A. D. (Kzyl-Orda)

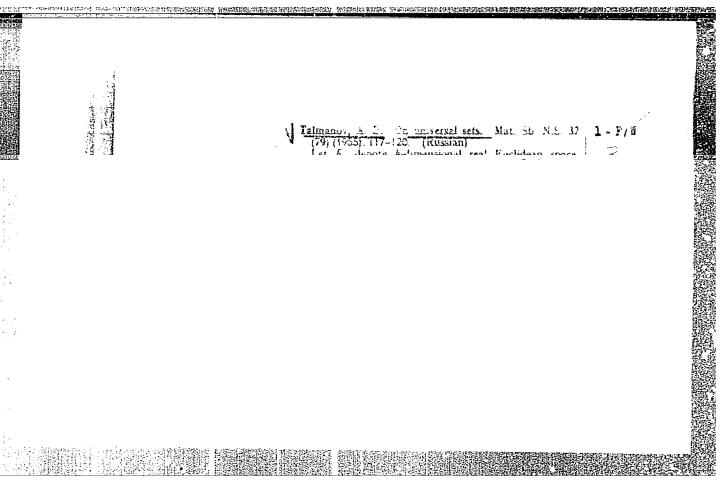
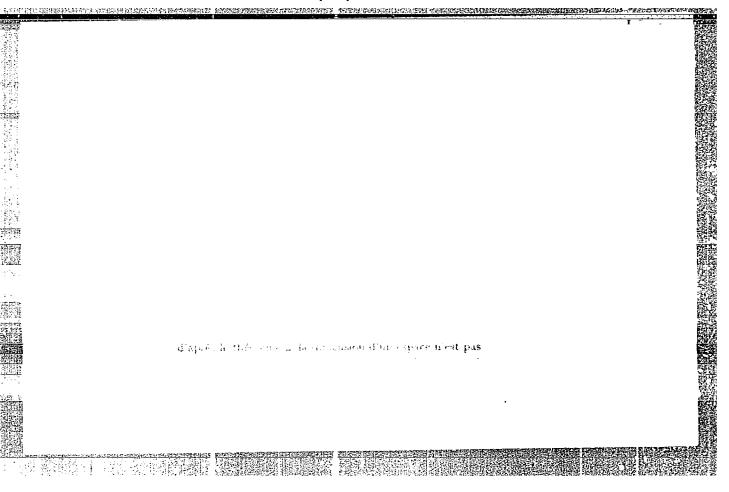"Quasicomponent Nonclosed Sets," Uspekhi Matematicheskikh Nauk, Vol 8, No 2 (54), pp 159-167.

report presented during six weekly sessions, 23 Oct - 2 Dec 52 of the Moscow University Society.

W-27890, 18 Sep 53

TAYMANOV,A.D. (Shuya)

     Closed mappings. Part 1. Mat.sbor. 36 no.2:349-352 Mr-Ap '55.
         (Aggregates) (Topology)   (MLRA 8:6)

Talmanov, A. D. On universal sets. Mat. Sb. N.S. 37
(79) (1955), 117-120. (Russian)

Let E denote k-dimensional real Euclidean space

d'après la thèse que la conclusion d'un rapport n'est pas

AUTHOR: Taymanov, A.D.

TITLE: The Continuation of the Mappings of Compacta (Prodolzheniye   SOV/140-58-3-26/34
               otobrazheniy kompaktov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Ministerstva vysshego
               obrazovaniya SSSR,Matematika, 1958,Nr 3,pp 198 - 202 (USSR)

ABSTRACT: The author proves the existence of a special continuation of
               a continuous mapping and uses this result in order to prove
               that there exists a plane set of the type F_σ, the image of
               which under an open mapping is a cube I_n, $n \geqslant 3$. Furthermore
               it follows from the details: Every metric space Y which is
               a continuous image of an n-dimensional set X, is the image
               under an open mapping of a certain other n-dimensional set.
               There are 5 references, 4 of which are Soviet, and 1 American.

ASSOCIATION: Ivanovskiy tekstil'nyy institut(Ivanovskiy Textile Institute)

SUBMITTED: December 16, 1957

Card 1/1

AUTHOR: Taymanov, A.D. (Ivanovo)   SOV/42-13-3-18/41

TITLE: On Model Classes Being Closed With Respect to the Direct Product
            (O klassakh modeley, zamknutykh otnositel'no pryamogo proizvedeniya)

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 3, p 231 (USSR)

ABSTRACT: The author investigates the closedness of the model classes and
            extends in a certain manner the results of Bing [Ref 2] to this
            subject.
            There are 2 American references.

Card 1/1

16(1)

TITLE: Class of Models Closed With Respect to Direct Union

ABSTRACT: A.Horn $\boxed{\text{Ref 1}}$ has shown that every class of models K determined by a Horn's axiom, is closed with respect to the direct product, i.e. that from $\mathfrak{M}_1 \in K$, $\mathfrak{M}_2 \in K$ there always follows $\mathfrak{M}_1 \times \mathfrak{M}_2 \in K$. Simultaneously he conjectured that every axiomatizable multiplicatively closed class of models is determined by a Horn's axiom. For the classes Pos F and Dis F the conjecture is proved $\boxed{\text{Ref 2}}$. The author gives a characterization of those axioms which are equivalent to a Horn's axiom (necessary and sufficient conditions) and he gives an example of a multiplicatively closed axiom which does not

Card 1/2

'Class of Models Closed With Respect to Direct Union   SOV/20-127-6-8/51

            satisfy these conditions, whereby the above conjecture is refuted
            for the general case.
            There are 6 theorems, 2 lemmas, 2 conclusions and 3 definitions.
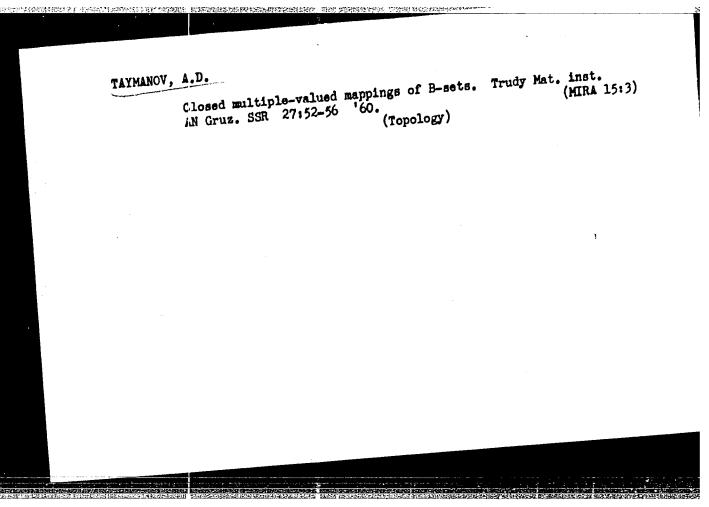   There are 4 non-Soviet references, of which 4 are American.

ASSOCIATION:Ivanovskiy tekstil'nyy institut (Ivanovo Textile Institute)

PRESENTED: April 29, 1959, by A.I.Mal'tsov, Academician

SUBMITTED: April 28, 1959

Card 2/2

TAYMANOV, A.D.

Closed multiple-valued mappings of B-sets. Trudy Mat. inst.
iN Gruz. SSR 27:52-56 '60.   (MIRA 15:3)
(Topology)

85222

S/042/60/015/005/015/016XX
C111/C222

/6.5400

AUTHOR: Taymanov, A.D.

TITLE: On Closed Maps

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.5, pp.187-190

TEXT: Theorem 1: Let f be a continuous mapping of the metrical space X onto the metrical space Y which can be continued in a continuous mapping $\tilde{f}$ of the bicompact extension $\tilde{X}$ of X onto the bicompact extension $\tilde{Y}$ of Y. The mapping f is closed then and only then if for an arbitrary $y \in Y$ the set $\tilde{f}^{-1}(y) \setminus X$ contains no accumulation points of the set $X \setminus \tilde{f}^{-1}(y)$.
Herewith the question of P.S.Aleksandrov, whether each n-dimensional space can be mapped (n-k)-dimensional closed into E^n, where $k \leqslant n$, is answered negatively.
As an example the author considers the square $Q = \{0 \leqslant x \leqslant 1, \ 0 \leqslant y \leqslant 1\}$ and removes from it all inner points with an irrational abscissa. The remainder set R is a connected one-dimensional set of the type F_σ ; it is shown that there exists no zero-dimensional continuous closed mapping of R into $[0,1]$ of the OZ-axis.

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On Closed Maps

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The author mentions Katetov, Shersnev, Yu.M.Smirnov, I.A.Vaynshteyn and L.V.Keldysh. He thanks Yu.M.Smirnov for consultation. There are 4 references: 2 Soviet, 1 Czecho-Slovakian and 1 American.

SUBMITTED: March 2, 1959

Card 2/2

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AUTHOR: Taymanov, A. D.

TITLE: On a Class of Models Which are Closed With Respect to the Direct Product

TEXT: The paper, the results of which have been published in (Ref.5), was written under guidance of A. J. Mal'tsev in his seminary at the Ivanovo Pedagogical Institute. The author uses the notions and terminology of (Ref.2). He gives a characterization of the axioms reducible to the Horn form, and with the aid of this characterization he proves that the Horn condition is not necessary for the closedness of the class of models with respect to the direct product.

Theorem 2: In order that the axiom

(1) $\phi \alpha = \phi(x_1, \ldots, x_k) \alpha'(P_1, \ldots, P_s)$

be equivalent to an axiom of the conditional class ($\equiv$ reducible to the Horn form), it is necessary and sufficient that it is qs-closed.

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On a Class of Models Which are Closed With Respect to the Direct Product

As an example of a multiplicatively closed, but not qs-closed axiom, the author gives

(δ) $(\exists x_1)(\exists x_2)(\exists x_3)(P_1(x_1) \;\&\; P_2(x_2) \;\&\; \bar{P}_3(x_3) \;\&\; P_1(x_3) \lor P_2(x_3))$.

The author refers to the fact that his examples contradict the theorems of Lyndon (Ref.6).

The author thanks A. J. Mal'tsev.

There are 6 references: 1 Soviet and 5 American.

[Abstracter's note: (Ref.2) is a paper of K. Bing in Proc. Amer. Math. Soc., 1955, Vol. 6, No.5, pp. 836-846].

PRESENTED: by A. J. Mal'tsev, Academician

SUBMITTED: April 24, 1959

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